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Contracting and Other Integrating Arrangements in the Turkey Industry

U.S. DEPARTMENT OF AGRICULTURE — ECONOMIC RESEARCH SERVICE

PREFACE

Noticeable changes have occurred in the structure of the turkey industry in the past few years. It is important that industry leaders and others responsible for evaluating the effects of various policies and proposals know the extent and type of changes that are taking place.

The purpose of this report is to provide information on contracting and other forms of integration in the turkey industry. The report summarizes data available on contract production and describes other forms of integration found in the industry.

The author appreciates the cooperation of the Agricultural Stabilization and Conservation Service, U. S. Department of Agriculture, in supplying data from a national survey made in connection with a proposed marketing order, and of the firms in major turkey-producing States who supplied information in personal interviews.

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SUMMARY

The U.S. turkey industry is trending toward greater use of contracts and other means of integrating the various stages of production and marketing. In a survey of 53 firms in leading turkey-producing areas, examples of integration of all stages of production and marketing were found. Integration was achieved through ownership, or through contracts, agreements, or other arrangements. No one set of factors accounts for the presence or type of contracting or other forms of vertical integration.

The extent to which turkey growing is integrated with some other stage of the industry is indicated by information obtained in connection with a 1962 referendum on a proposed turkey marketing order. Producers reported that about 25 percent of production was under risk-sharing contract. The percentage produced under this type of contract varied by regions, with the Western Region having the highest proportion (39 percent), followed by the South Atlantic with 36 percent, and the South Central with 34 percent. Only 4 percent of the North Atlantic's production was under risk-sharing contract, the lowest of any of the regions.

Among the 53 firms surveyed, proportionately more of the feed firms had contracts with producers, although all types of firms did some contracting for production. Feed firms operating regionwide or nationwide had the largest average number of turkeys grown under contract, but local feed firms in some instances had the largest single operations.

Under risk-sharing contracts, most key decisions about production and marketing are transferred to the contractor, along with most of the production risks. The producers' decisions are largely confined to selecting the contractor and the type of contract.

The risk-sharing contracts used by survey firms fell into three categories: (1) sharing of profits; (2) guarantee of a minimum payment to the producer with sharing of profits; and (3) guarantee of a minimum payment to the producer, with no profit sharing. Some of the minimum-guarantee plans included incentive payments to promote efficiency. Recently, the shift has been away from contracts that provide for sharing of profits, and toward the guarantee-plus-incentive-payment plans.

It is estimated that in 1961-62, 60 to 70 percent of the turkeys produced were grown under some type of arrangement between growers and other firms, or were produced by firms owning both growing and other facilities. In the future, the proportion of turkeys produced under risk-sharing contracts or on company-owned or leased farms is expected to increase. Probably, fewer turkeys will be grown under financing by banks and more will be financed by firms connected with the turkey industry.

CONTRACTING AND OTHER INTEGRATING ARRANGEMENTS IN THE TURKEY INDUSTRY

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INTRODUCTION

Only a few comprehensive studies have been made of contracting and other forms of vertical integration in the turkey industry. 1/ Although previous reports have indicated that changes were taking place in the structure of the industry within particular areas, there have been no previous overall surveys of major turkey-producing areas.

One study indicated that half the turkey production in the United States was integrated to some degree in 1957-58, mainly through contracts between growers and feed dealers and cooperatives (8). A regional study of feed-industry financing showed that, in six Midwestern States, turkeys were grown under much more formal and detailed contracts than other poultry or livestock. No estimate was made of the percentage of turkeys grown under contract (6). Another study on the production of turkeys in Arkansas indicated that only 4 percent of the 1961 production was accounted for by independent producers. This was in a State where production in 1961 was more than six times what it was in 1950 (3).

This report is concerned with the changes in production and integration in the industry in the major producing areas of the United States. Much concern has been expressed about the effect on farmers' bargaining power of vertical integration in agricultural industries. While this study of the turkey industry was not intended to examine this question directly, it should provide some measure of the extent and types of coordination that exist in the industry.

The study was chiefly concerned with vertical integration, which, for purposes of this report, is defined as occurring when a significant number of the major decisions affecting two or more stages of production and marketing are controlled by one firm or shared by two or more firms. This control may be through partial or complete ownership, or through contracts or other arrangements. Control of the management of hatching, growing, and processing of turkeys by one firm is an example of vertical integration. In this report, the extent to which decisions on production and marketing are made by a single firm determines the degree of integration.

The detailed objectives of the study were to:

1. Identify the major integrators in the industry.
2. Describe the methods used to integrate stages of production and marketing.
3. Determine the regional differences in organization and coordination in the industry.
4. Project the future role of various types of firms in integration in the turkey industry.

1/ A survey of the literature on contract farming and vertical integration for many agricultural commodities is included in (4). (Underscored numbers in parentheses refer to Bibliography, p. 37).

Data were obtained (1) from records of 1961 production of turkeys supplied by the industry to the Agricultural Stabilization and Conservation Service (ASCS), U.S. Department of Agriculture, as a prerequisite for voting in the turkey marketing order referendum in 1962; and (2) by personal interviews with managerial personnel of firms in major turkey-producing States. The compilation and analysis of the data from both sources are described in later sections.

NATIONAL STATISTICS ON THE TURKEY INDUSTRY

To establish eligibility for voting in the turkey marketing order referendum of 1962, turkey producers gave certain information on the type and size of growing operations for the year 1961 to local ASCS offices. If the turkeys were grown under risk-of-loss contracts, both contractor and producer could vote in the referendum.

The following producers were not eligible to vote in the referendum (2):

1. Those producing less than 3,600 pounds (live weight) per year.
2. Those producing less than 100,000 pounds per year and handling (processing and distributing) all except a maximum of 5,000 pounds through their own facilities. Not more than 5,000 pounds of the volume handled could come from sources other than their own production. A producer handling his own turkeys within this definition had the option of waiving his exempt status and voting in the referendum. Thus, some undetermined number of producers handling their own turkeys are not included in this analysis, depending on the actual number who met the requirements as producer-handlers and the number who chose to be classified as producers.

The producers registering for the referendum gave the following information:

1. Number of pounds produced in 1961.

2. Quantity produced under risk-of-loss (risk-sharing) contract.

3. Quantity sold through cooperatives.

4. Number of contractors associated with each contract producer.

A risk-of-loss contract was defined in Form ASCS-125, "Certification of Turkeys Marketed in 1961," as: "One which provides that if the returns from the sale of turkeys are not sufficient to cover the financing the loss will be shared, or assumed entirely, by the contractor. The typical guarantee contract wherein the contractor pays the grower a set amount per pound or per bird would be a risk-of-loss type contract."

The primary interest of ASCS in contracting was not in integration but in determining the pecuniary interest the contracting parties had in turkeys. However, information obtained from the survey of firms in the industry showed that risk-of-loss contracts did involve a sharing or transferring of a significant number of decisions.

Although risk-of-loss was the only type of contract reported in the ASCS material, other types of risk contracts are used by contractors. All types of risk contracts can be described as risk-sharing contracts, the term that will be used throughout this report. Risk-sharing contracts transfer some of the production risk and most of the major decisions from the producer to the contractor. The contractor may agree to assume all or part of any loss on financing not covered by the sale of turkeys, or he may guarantee a fixed price per head or per pound to the producer.

The data were summarized in the ASCS county offices. These offices did not have a uniform method of reporting, so the data were not comparable or complete for all States. In some instances, the arrangement under which turkeys were produced, that is, use of risk-sharing contract or other arrangement, was not indicated. Other lists did not show whether the turkeys were sold through cooperatives or other market outlets.

The classification of contracts was determined on a county basis. Even with uniform guides, differences in contract classification between areas could have occurred. The number of turkeys reported produced under risk-sharing contracts was probably understated.

Even with these limitations, the ASCS referendum data are the most complete data available on risk-sharing contracts. They cover 87 percent of total production, and provide a comprehensive description of the turkey industry in terms of organization and coordination in the production area. They cover 97 percent of production in the South Atlantic Region.

ASCS data on contract production are summarized by regions in this section. The extent of contract production and the types of firms contracting with producers are shown. The same classification of firms is used throughout the report so that the more detailed information obtained from the survey can be related to this section.

Regional Comparisons

The relative positions of the geographic regions in turkey production in 1955-64 are shown in table 1. Production in the South Atlantic and North Atlantic Regions declined in relation to production in the other regions. The West North Central Region showed a very pronounced increase compared with the other regions from 1957 to 1961.

When an industry is changing in technology and organization as rapidly as the turkey industry is, the factors that induced growth in the past may not have the same results in the future. Integration through contracting or some other method is only one of such factors, but information about it can be helpful.

Integration Through Use of Risk-Sharing Contracts

A summary by regions of the 1961 turkey production reported under risk-sharing contracts and other arrangements is shown in table 2. Almost 6 percent could not be classified because the method of production was not indicated.

The two leading regions present a contrast in types of production arrangements. In the West North Central Region only 13 percent of reported production was under risk-sharing contracts, compared with almost 40 percent in the Western Region. In the West North Central Region, Missouri reported about one-third of its production under risk-sharing contracts. It was the only State in this region with so high a percentage of such contracts.

California was first, and Utah second, in turkey production in the Western Region in 1961, 1962, and 1963. In 1961, almost 50 percent of California's production and 35 percent of Utah's was under risk-sharing contracts.

Table 1.--Distribution of turkey production, by region, United States, 1955-64

Region	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
	Percent									
North Atlantic	8	6	5	5	4	4	3	3	3	3
East North Central	14	13	13	14	16	15	16	16	15	15
West North Central	26	28	28	30	34	35	36	33	34	34
South Atlantic	17	17	17	15	14	11	10	10	12	13
South Central	10	11	11	10	9	10	10	10	11	12
Western	25	25	26	26	23	25	24	28	25	23
Total	100	100	100	100	100	100	100	100	100	100

Source: Derived from "Turkeys--Production, Disposition, and Gross Income," U.S. Dept. Agr. Statis. Rptg. Serv. POU 3-1, for the years 1955-64.

Table 2.--Distribution of registered turkey production 1/ according to production arrangement, and average quantity per producer, by region, United States, 1961

Region	Pounds registered as a percentage of total produced 2/	Registered production						
		Percentage of total				Average per producer		
		Risk-sharing contracts	Other arrangement 3/	No arrangement designated	Total	Risk-sharing contracts	Other arrangements 3/	No arrangement designated
	Percent	Percent	Percent	Percent	Percent	1,000 lbs.	1,000 lbs.	1,000 lbs.
North Atlantic	83	4	41	55	100	98	174	149
East North Central	88	16	83	1	100	147	208	178
West North Central	87	13	84	3	100	201	202	215
South Atlantic	97	36	63	1	100	95	276	127
South Central	79	34	39	27	100	224	145	207
Western	87	39	61	0	100	405	342	0
Total	87	25	69	6	100	208	224	183

1/ "Registered turkey production" refers to production reported by producers registering for the 1962 referendum on marketing orders.

2/ Total production from "Turkeys--Production, Disposition, and Gross Income, 1961-62, "U.S. Dept. Agr. Statis. Rptg. Serv. POU 3-1, Apr. 1963

3/ Includes all methods of financing production, except risk-sharing contracts.

In 1961, the North Atlantic Region had the smallest percentage of production under risk-sharing contracts of all the regions. Information received in the referendum indicated that 4 percent of production in the region was under risk-sharing contracts, but the method used in reporting the information precluded classification of more than half of the production reported.

Regional data do not show that risk-sharing contracts are related to total production. However, there appears to be a relationship between the use of risk-sharing contracts and production in some States. This is discussed in a later section of the report.

Types of Firms Contracting With Producers

The names of the firms contracting with producers were included in the ASCS data. Information from other sources was used to classify them into the broad grouping of firms defined below.

"National or regional feed firms" are those firms owning or controlling feed mills in more than one State.

"Local feed firms" are firms with operations confined to a small area of one State. Usually they own or control only one feed mill.

"Cooperatives" include only cooperatives with feed operations. They are listed as one group; however, within this group there are local, regional, and national cooperatives.

"Processors" include processing plants that are primary firms; processing plants that are subsidaries of larger companies, such as meat packers; and processing plants that are part of small integrated operations. This single broad grouping was used because of the small number of firms in each of the subcategories.

"Hatcheries" is a broad grouping that includes hatcheries of all sizes and types, regardless of the number of units or area of operation.

"Farms and individuals" include small incorporated farms and individuals with a limited number of turkeys under contract.

The total number of primary contractors reporting risk-sharing contracts with producers in each region in 1961 is shown by type of firm in table 3. Most of the contracts involved only the contractor and the producer. Less than 6 percent of the contracts were reported to have more than two parties, but the number of parties in approximately 25 percent of the contracts was not indicated.

The numbers of firms in table 3 are not mutually exclusive between regions. The purpose of this table is to show the number and type of contractors actually operating in each region. Some firms operate in more than one region.

The average number of turkeys produced per contracting firm under risk-sharing contracts with different types of firms is shown in table 4 for each region. The number of turkeys was obtained by dividing pounds reported by the average live weight reported for each region.

For the United States, the average number of turkeys per contractor was 114,000. The Western Region averaged more than 317,000 turkeys per contractor. The other regions averaged much lower--between 60,000 and 90,000--except the North Atlantic Region, which averaged only about 18,000 per contractor.

Table 3.--Number of firms having risk-sharing contracts with turkey producers, by type of firm and region, United States, 1961 1/

Region	Feed firms: National or regional	Feed firms: Local	Feed firms: Cooperatives 2/	Feed firms: All feed	Processors	Hatcheries	Farms and individuals	Other	Total
	Number								
North Atlantic..........	---	---	---	---	---	2	---	---	2
East North Central......	3	11	1	15	8	5	8	2	38
West North Central......	3	9	2	14	5	6	6	---	31
South Atlantic..........	1	8	2	11	6	8	1	2	28
South Central...........	7	13	2	22	5	4	11	1	43
Western.................	4	8	3	15	6	3	3	1	28

1/ Firms operating in more than one State are counted as separate firms in each State.
2/ Includes local, regional, and national cooperatives.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

Table 4.--Average number of turkeys per contracting firm produced under risk-sharing contract, by type of firm and region, United States, 1961 1/

Item	Feed firms: National or regional	Feed firms: Local	Feed firms: Cooperatives 2/	Feed firms: All feed	Processors	Hatcheries	Farms and individuals	Other	Average for region
	Thousands								
North Atlantic Region...	---	---	---	---	---	18	---	---	18
East North Central Region.................	15	57	198	58	77	44	57	139	63
West North Central Region.................	240	43	53	97	90	42	29	---	73
South Atlantic Region...	564	112	248	178	18	40	1	29	87
South Central Region....	176	56	53	94	47	55	15	23	63
Western Region..........	327	479	223	387	390	97	18	11	317
	Rank								
Rank by average production................	1	5	3	2	4	6	8	7	---

1/ Firms operating in more than one State are counted as separate firms in each State. All figures are averages for the firms shown in table 3.
2/ In most instances, this represents a summary of many local cooperatives operating under a State or regional cooperative.

Source: Date obtained from turkey producers registering for the 1962 referendum on marketing orders.

A ranking of the different types of firms by the average number of turkeys grown under contract is also shown in table 4. Feed firms ranked first in all except the Western and East North Central Regions, where processors ranked first. Fifteen firms had risk-sharing contracts with producers in more than one State (table 5). In most instances multi-State operators were large feed firms or meatpackers with a Nation-wide business. A few smaller firms near State borders had contract producers in more than one State.

Percentage of Total Production by Type of Contractor

The total numbers of firms in the country were adjusted to eliminate duplication of firms operating in more than one State. The average number of turkeys grown under contract with each type of firm and the percentage of total contract production for each type, are given for the United States in table 6. Because each multi-State firm is counted only once in this table, the average numbers of turkeys per contractor of each type do not agree with the average numbers in table 4 for categories including multi-State firms. This affects primarily the national and regional feed companies and the processors.

Approximately 23 percent of all contract production was with processors. However, since more processors were involved in three-way contracts than any other type of contractor, the percentage of production under exclusive contract to processors would be somewhat less than this.

Number of Parties Involved in Contract Production

Table 7 and appendix table 24 classify contract producers by the number of parties in the contract. Information was not available on the extent to which risks were shared.

About 25 percent of the contract production could not be classified by number in the contract. However, two parties were involved in about 70 percent of all risk-sharing contracts.

Producers With Both Risk-Sharing Contracts and Other Production Arrangements

Only 4 percent of the reporting contract producers grew turkeys under both risk-sharing contracts and other production arrangements. The Western Region had the lowest percentage (2.8) and the West North Central Region the highest percentage (6.1) of such producers.

Use of Cooperatives as Market Outlets

Cooperative processing and marketing associations are important outlets for turkeys produced under growing arrangements other than risk-sharing contracts (table 8). For turkeys not grown under risk-sharing contracts, the Western and the West North Central Regions reported the highest percentages sold through cooperative processing and marketing arrangements--over 44 percent in the Western Region. Approximately 6 percent of the turkeys produced on risk-sharing contracts were reported sold through cooperatives, but the basic data did not show the market outlet for almost 34 percent of this production.

Table 5.--Number of multi-State contracting firms, and number of States involved, by type of firm, 1961

Type of firm	Firms with multi-State operations	Total States in which firms operated
	Number	Number
National or regional feed firms	6	16
Local feed firms	2	4
Cooperative feed firms	1	2
Processors	5	13
Hatcheries	1	2
Total	15	37

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

Table 6.--Number of firms with risk-sharing contracts, average number of turkeys produced per firm, and percentage of total contract production, by type of firm, United States, 1961

Type of firm	Firms 1/	Turkeys	
		Average per firm	Percentage of total
	Number	Thousands	Percent
National or regional feed firms	9	469	22
Local feed firms	47	144	35
Cooperative feed firms	9	174	8
All feed firms	65	193	65
Processors	24	187	23
Hatcheries	25	49	6
Farms and individuals	29	30	5
Other	5	44	1
Total	148	131	100

1/ Each multi-State firm counted only once, rather than once for each State as in tables 3 and 4.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

Table 7.--Number of turkey producers with risk-sharing contracts, and percentage distribution by number of parties in the contract, by region, United States, 1961

Region	Risk-sharing contract producers	Distribution by number of parties in contract: 2 parties	3 parties	4 parties	Number in contract not specified	Total
	Number	Percent				
North Atlantic	'21	100	---	---	---	100
East North Central	274	65	7	---	28	100
West North Central	360	35	1	1	63	100
South Atlantic	594	65	6	---	29	100
South Central	249	92	6	---	2	100
Western	433	93	6	---	1	100
Total	1,931	70	5	2/	25	100

1/ See appendix B, table 24, for information by States.
2/ Less than 1 percent.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

Table 8.--Percentages of producers selling turkeys through cooperatives and other market outlets, by type of growing arrangement and region, United States, 1961 1/

Region	Producers with risk-sharing contracts: Selling through cooperatives	Selling through other market outlets	Market outlet not identified	Total	Producers with other production arrangements: Selling through cooperatives	Selling through other market outlets	Market outlet not identified	Total
	Percent							
North Atlantic	0	10	90	100	0	47	53	100
East North Central	5	60	35	100	7	78	15	100
West North Central	11	67	22	100	30	67	3	100
South Atlantic	2/	58	42	100	1	80	19	100
South Central	3	72	25	100	8	81	11	100
Western	11	55	34	100	44	50	6	100
Total	6	60	34	100	23	68	9	100

1/ See appendix table 25 for information by States.
2/ Less than 1 percent.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

Size of Production Units Related to Type of Contract

The percentages of turkeys grown under risk-sharing contracts and other growing arrangements in 1961 are shown for the 10 leading States in figure 1 and appendix table 23. These percentages differ slightly, as figure 1 does not take into account a small amount of the production that was reported in summary form and could not be classified by flock size or type of arrangement.

The distribution of all production in the 10 States by flock size (total number of turkeys raised per year) is presented in figure 2. Minnesota, California, and Wisconsin, which ranked 1st, 2nd, and 4th in total production, had more of their production concentrated in the larger flocks and less in the smaller ones than the other States. Iowa and Missouri, which ranked 3rd and 5th in total production, departed from the pattern of the other 10 leading States with more of their production concentrated in the middle and lower flock sizes.

The percentage of each State's total risk-sharing contract production falling into certain flock sizes is shown in figure 3, and the percentage under other arrangements is shown in figure 4. Figures 3 and 4 do not show a significant correlation between flock size and growing arrangement. (Additional breakdown of flock sizes is shown in Appendix B, table 26.)

Almost 50 percent of California's production was under risk-sharing contract. It was the only State of the leading four with more than 10 percent of production under this type of arrangement. The pattern of flock size in California was about the same for turkeys produced under risk-sharing contracts and for those produced under other arrangements. In Minnesota, the small amount of contract production showed a much higher concentration in the larger flock sizes than did the noncontract production.

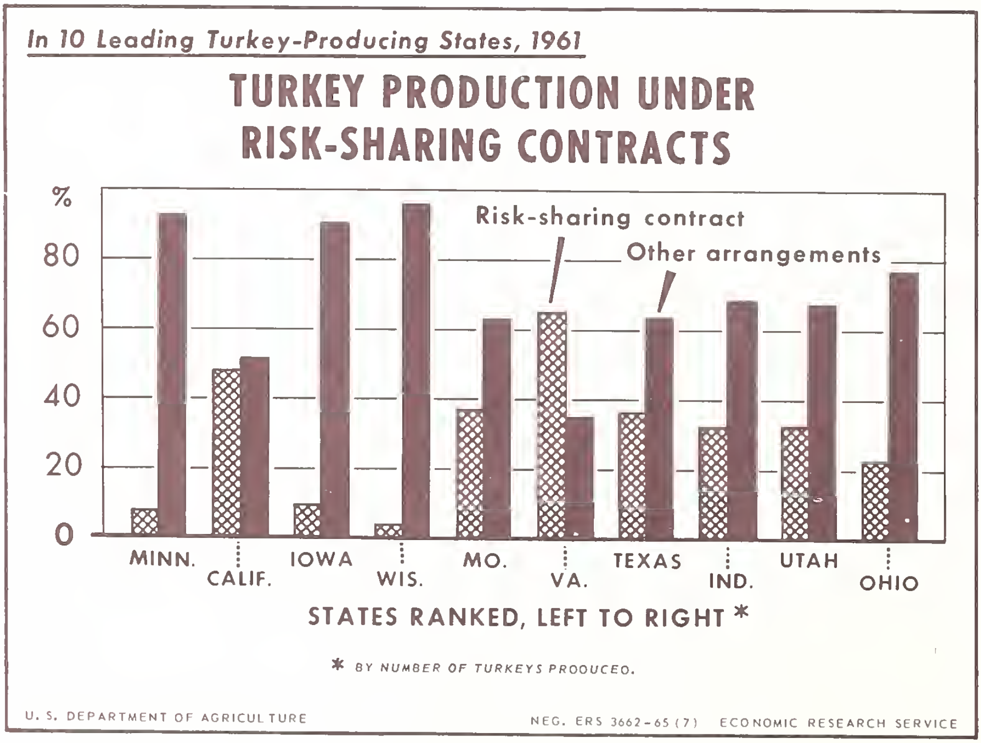

Figure 1

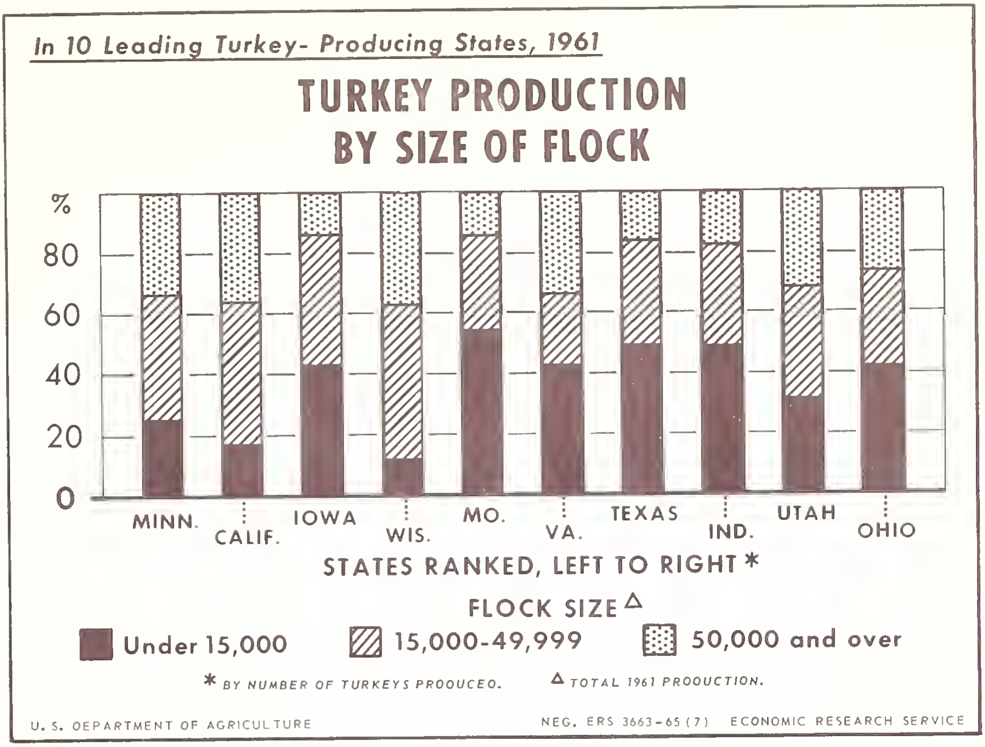

Figure 2

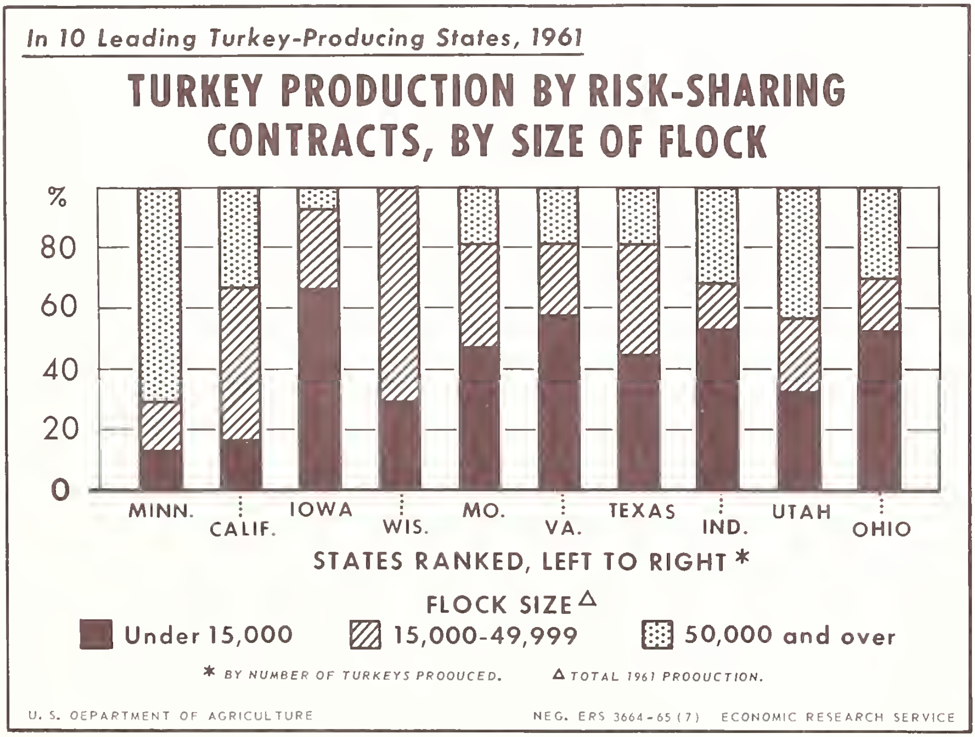

Figure 3

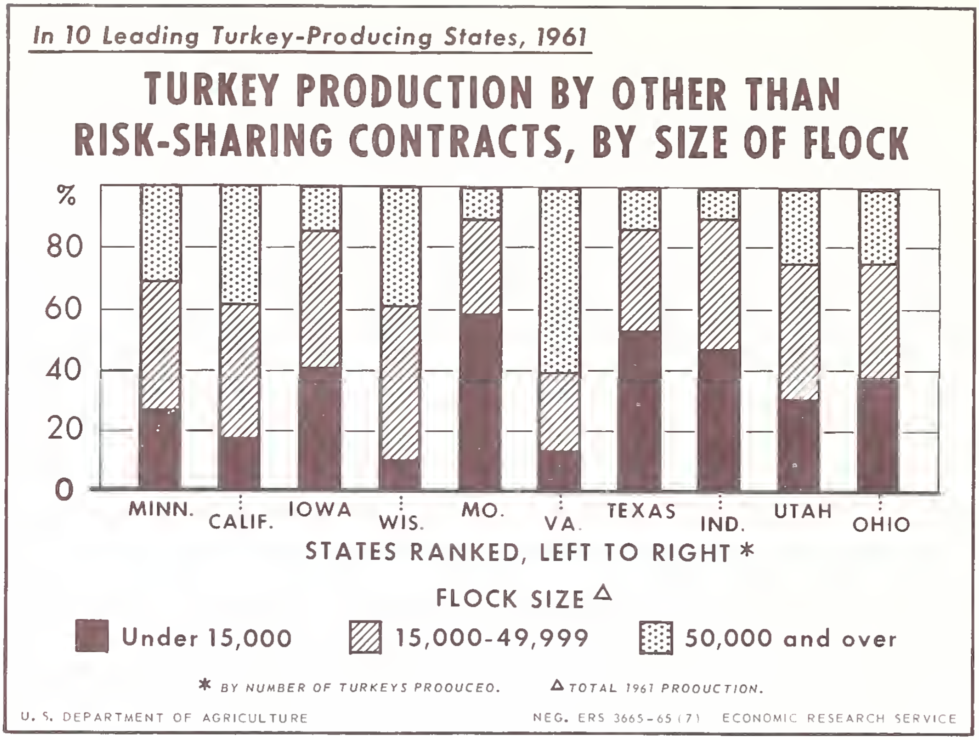

Figure 4

However, the adjoining State of Wisconsin, also with a small percentage of contract production, had no flocks of more than 50,000 raised under contract. Virginia had a larger percentage of its production under contract than the other nine States. Contract production in Virginia was concentrated in much smaller flock sizes than that under other arrangements.

Figures 2-4 illustrate rather than explain the differences that exist in flock sizes between States and between types of production arrangements. Comparing type of production arrangements with other factors, such as type of farming, supply of inputs, and the geographic location of the industry within the States would aid in identifying what determines flock size.

INTEGRATION IN LEADING TURKEY - PRODUCING STATES

The ASCS data summarized in the previous section contained little information on integration except the extent to which risk-sharing contracts were used at the production stage and the types of firms contracting with producers. Details of the contracts, characteristics of the contractors, and descriptions of other forms of integration at the production level were not included. Integration between other stages of the industry was not covered.

A survey of 53 firms in the turkey industry was conducted in late 1961 and 1962. Information on operations of the firms was obtained through interviews with officials (table 9). Forty-nine schedules were obtained in the 10 States leading in turkey

Table 9.--Firms interviewed in 1961-62 survey

Type of firm	Firms having risk-sharing contracts with producers	Other firms
	Number	Number
Regional feed firms	3	1
Local feed firms	19	4
Cooperative feed firms	4	0
Processors	5	7
Hatcheries	3	0
Farms or individuals	1	6
Total	35	18

production--States representing over 72 percent of the total production of turkeys in 1959-64. Total production in these States for selected years is given in table 10. In addition, four schedules from the North Atlantic Region were included because the industry in this region appeared to be somewhat different in form of organization from that in the 10 leading States.

The firms to be visited were selected by consulting previous studies and by talking with industry leaders and extension workers. An attempt was made to study different arrangements in the production and marketing of turkeys in the industry, rather than to study a random sampling of firms. Thus the sample is probably biased toward those firms having some type of integrated program.

The survey firms' combined production of turkeys under all growing arrangements was 33 percent of the total production in the 10 States in 1961. Many of the firms handled turkeys in addition to those they produced, contracted for, or financed. Fifty-one percent of the turkeys produced in the 10 States were handled at some stage by a survey firm.

Survey Firms Having Risk-Sharing Contracts With Producers

As shown in table 9, 35 of the 53 firms surveyed reported some form of risk-sharing contracts with producers. A summary of the major characteristics of these firms is given in table 11. Additional details on the organization, functions, and degree of integration are discussed below by type of firm.

Regional feed firms.--Turkey feed accounted for less than 16 percent of the total feed produced by the three regional feed firms. Over 88 percent of the turkey feed was for the contract production of these firms. The average number of turkeys per firm grown under contract was 758,000 per year, with the largest firm having more than 1 million turkeys under contract to growers.

None of the firms owned hatcheries or had any formal working agreement with them. None owned any processing plants, but one firm did have a contract with a processor to presell a prescribed quantity of turkeys at a specified price. All firms sold their contract production directly to processors.

Table 10.--Number of turkeys produced in the 10 leading States, 1959-64

State	1959		1960		1961		1962		1963		1964 1/	
	Production	Rank	Production	Rank	Production	Rank	Production	Rank	Production	Rank	Production	Rank
	Thousands		Thousands		Thousands		Thousands		Thousands		Thousands	
Minnesota....	13,147	1	14,517	1	18,576	1	15,084	2	15,049	1	15,498	2
California...	13,006	2	14,491	2	17,703	2	17,884	1	15,029	2	15,726	1
Iowa.........	8,154	3	7,664	3	9,823	3	7,782	3	7,954	3	7,969	3
Wisconsin....	4,244	5	4,075	6	6,212	4	5,517	4	5,350	4	5,153	5
Missouri.....	3,881	6	4,279	5	5,690	5	4,096	5	5,213	5	6,725	4
Virginia.....	6,749	4	4,644	4	3,336	6	4,035	7	4,663	6	4,686	7
Texas........	3,411	7	3,929	7	4,784	7	4,074	6	4,577	7	4,859	6
Indiana......	3,376	8	3,090	9	4,078	8	3,364	10	3,217	10	---	---
Utah.........	2,522	10	2,798	10	3,834	9	3,506	8	3,318	9	---	---
Ohio.........	3,009	9	3,138	8	3,621	10	3,441	9	3,681	8	3,912	9
North Carolina....	---	---	---	---	---	---	---	---	---	---	4,440	8
Arkansas.....	---	---	---	---	---	---	---	---	---	---	3,751	10
	Percent											
10-State total as a percentage of U.S. total.......	73	---	74	---	72	---	75	---	73	---	73	---

1/ Preliminary.

Source: Derived from "Turkeys--Production, Disposition, and Gross Income," U.S. Dept. Agr. Statis. Rptg. Serv. POU. 3-1, for the years 1959-64.

Table 11.--Summary of major characteristics of survey firms having risk-sharing contracts with turkey producers, 1961

Type of firm	Business structure	Major functions	Average annual volume per firm	Type of integration
Regional feed firm	Multi unit corporation	Feed manufacturing Growing turkeys	758,000 turkeys grown under all arrangements	Very little integration beyond contract growing.
Local feed firm	Multi unit corporation	Feed manufacturing or mixing Growing turkeys Hatchery operations	614,000 turkeys grown under all arrangements	Growing and feeding operation integrated with hatcheries primarily through ownership. Nine of the firms had agreements or contracts with processors.
Cooperative feed firm	Usually regional cooperative or part of one	Feed manufacturing or mixing Contract production	568,000 turkeys grown under all arrangements	Relatively little integration between different firms in the cooperatives, but some contract production.
Processor	Single-firm cooperative or multi unit corporation	Growing turkeys Live hauling Processing Storing Feed manufacturing Hatchery operation	14 million pounds processed and 313,000 turkeys grown under all production arrangements	More integration than the other groups. Production primarily integrated through contracts, other stages integrated through ownership.
Hatchery	Ranges from simple ownership (incorporated) to large multi unit corporation	Growing turkeys Hatchery operation	125,000 turkeys grown under all arrangements	Very little integration beyond contract growing.

Two firms were subsidiaries of larger open-stock corporations with activities in fields other than agriculture. The other was a regional feed firm, with turkey feed accounting for about 15 percent of its feed operation.

Local feed firms.--This was the largest group of contractors in the firms surveyed, and the largest group reporting contracting in 1961. The sample includes local feed firms in all of the 10 major turkey-producing States. The 19 firms varied greatly in volume of turkeys produced, feed operations, and degree of integration. The range in turkeys produced was from just over 70,000 per year to over 3 million per year.

All of the individually owned single firms had a yearly production of less than 400,000 turkeys (table 12). The larger firms were either closed-stock multi-unit firms or subsidiaries of large open-stock corporations.

Hatcheries were the most frequently owned additional facility. Six of the eight firms owning hatcheries had breeding flocks that supplied part of the hatching eggs. One firm owned processing facilities and 13 sold 90 percent or more of their turkeys to processors.

Not all of the firms had similar feed operations. One firm bought and sold feed; the others had some type of feed mill. Thirteen firms reported the volume of feed handled yearly (table 13). Contract production accounted for more than 70 percent of all turkey feed produced by these firms. The small firms had a higher percentage than the larger firms output going to flocks produced on facilities they owned or leased.

Nine firms had other production arrangements in addition to their contracts. The number of firms and the average number of turkeys per firm is shown by type of firm and production arrangement in table 14.

The large contractors had growers located greater distances from their facilities than the small ones. Eight firms in the group producing fewer than 400,000 turkeys annually supplied information on the location of their growers. Three of these reported that all turkeys were produced within 25 miles of the plant and two indicated that some were produced more than 100 miles away.

Seven of the firms producing more than 400,000 turkeys annually gave the location of their growers. All firms had some growers more than 25 miles away from the plant and three had growers more than 100 miles away. There was considerable variation in the distance of growers from the plants, especially among the smaller plants. The competition for growers and the density of turkey production are other factors that affect the size of the area served by the firms.

Cooperative feed firms.--Four of the survey firms contracting with producers were cooperatives with feed operations. Three of these were multi-unit cooperatives. Cooperatives were classified as multi-unit if they were members of a large cooperative with several types of operations, or if a local cooperative controlled more than one principal service as a distinct operation, or was closely associated with other local cooperatives. Only one cooperative was classified as a single firm dealing primarily in feed.

The cooperative mills handled from 46,000 to 75,000 tons of feed annually, but not all of this was turkey feed. Turkey feed varied from 10 to 100 percent of the total output, and averaged 51 percent. Of the turkey feed distributed through various outlets by these firms, 27 percent was sold for cash, 30 percent was sold on credit, and 43 percent was used for contract production.

Table 12.--Business organization of local feed firms with risk-sharing contracts, and type of associated facilities, by size of firm, 1961

Yearly production of turkeys	Firms	Facilities owned by companies		Firms having agreements with--		Business organization		
		Hatchery	Processing plant	Processors	Hatcheries	Single firms	Multiple firms, closed stock	Open stock
	Number							
225,000 or less...	8	3	--	3	4	5	3	--
225,001 - 400,000.	4	1	1	2	--	2	2	--
400,001 - 900,000.	3	2	--	1	1	--	3	--
900,000 or more...	4	2	--	3	3	--	2	2
Total..........	19	8	1	9	8	7	10	2

Table 13.--Summary of feed-mill operations of 13 local feed firms with risk-sharing contracts, 1961

Tons of feed handled annually	Firms	Turkey feed as a percentage of total	Sales				
			Cash	Credit	To own contract producers	Own flocks	Total
	Number	Percent					
10,000 or less......	2	65	1.4	--	81.9	16.8	100
10,001 - 20,000.....	4	58	8.2	5.4	70.9	15.5	100
20,001 - 50,000.....	3	32	10.7	15.3	74.0	--	100
50,001 or more......	4	60	7.3	16.6	71.0	5.0	100
All firms.........	1/ 13	56	7.6	15.0	71.5	5.9	100

1/ Only 13 firms supplied this information on mill operations.

Table 14.--Summary of turkey production for local feed firms with risk-sharing contracts, 1961

Type of production	Firms	Average number of turkeys per firm
	Number	Thousands
Contract only.................	10	543
Contract and firm 1/..........	1	2/
Contract and financed.........	4	450
Contract, firm, and financed..	4	1,075
Total....................	19	614

1/ "Firm" production here refers to production with hired labor on farms either owned or leased by the firm.

2/ No data entered for this 1 firm.

None of the cooperatives grew turkeys on farms that they owned or leased. One cooperative had a very small number of turkeys grown under risk-sharing contracts, and did no financing. Only 10 percent of this cooperative's feed was for turkeys. The other three cooperatives had turkeys grown under both risk-sharing contracts and financing arrangements.

The average number of turkeys under contract per firm was 235,000 and the average number financed was 334,000--an overall average of 568,000. The cooperatives presented a contrast in organization and in the degree of integration. None owned facilities other than those directly concerned with manufacturing and distributing feed or growing turkeys. Two of them were associated with regional cooperatives that owned other facilities. One owned a hatchery, and another, a processing plant.

Two of the feed handling cooperatives reported contracts with processors. One had a contract to presell part of the contract production, and the other had a sales arrangement with a cooperative processing plant, which took about 85 percent of the production. Two reported contracts with hatcheries. One of these was a production contract involving the hatchery, the cooperative, and the producer.

Processors.--As a group, processors had more production and marketing stages integrated than the other types of firms surveyed. They differed considerably in size and in type of business organization. Two of the five with risk-sharing contracts were cooperative processors and the others were privately owned. All were firms with diversified functions. They processed from 5 to 22 million pounds of turkeys per year; the cooperative plants processed the larger volumes.

In two of the firms, all the major operations from breeding flocks through processing were integrated. Two other firms were highly integrated, but to a lesser degree.

All of the processors had working agreements with brokers or jobbers but not all their turkeys were sold through these channels. More than 95 percent of the volume processed by one cooperative processor moved through a cooperative sales federation. The other processors relied chiefly on jobbers or brokers.

One processor mentioned improved quality as a reason for contract production. The others indicated that increased efficiency and volume were their major reasons for contracting.

The processors obtained their turkeys from several sources. In 1961, 6 percent were financed, 41 percent came from individual producers, 33 percent from contract production, and 20 percent from other sources.

Hatcheries.--Three hatcheries had risk-sharing contracts with producers. Two were multi-unit closed-stock companies, and one was a corporation owned by an individual.

The largest of the 3 hatcheries produced about 900,000 poults in 1961, less than 2 percent of which were used for its own contracts. Contract production was used by this hatchery for surplus poults. The contracts were three-way, involving a feed company, the hatchery, and a grower.

The other two hatcheries owned feed mills. More than 90 percent of the feed from the mills was used for their own contract operations. The smaller of the 2 hatcheries had less than 200,000 turkeys on contract, and the larger, more than 300,000.

Survey Firms Not Having Risk-Sharing Contracts With Producers

Eighteen of the firms surveyed did not have any turkeys produced under risk-sharing contracts. A number of them did have financing programs that did not involve risk-sharing, and that involved less sharing of decisions than in contract production. A summary of the major characteristics of these firms is presented in table 15.

Local feed firms.--The four local feed firms included one cooperative mill, a feed dealer, and two closed-stock corporations. All were multi-unit firms with the exception of one of the closed-stock firms.

None of these firms were integrated by ownership beyond feed and hatchery operations. Three of the firms financed production, and the single-unit firm grew turkeys on farms it owned or leased. The yearly production financed or grown on company farms ranged from 84,500 to 500,000 turkeys, with an average of 261,500.

Two firms were active in selling turkeys. One firm acted as a broker for the production it financed and one firm had its turkeys custom-processed and then sold them through a broker.

Processors.--The four largest processors in this group were cooperatives with an average volume of over 20 million pounds of turkeys in 1961. The other processors were incorporated firms processing less than 8 million pounds per year. One of these was a corporation composed of a number of large-volume turkey growers.

The smaller firms integrated the major functions through ownership--from producing and hatching eggs through processing the turkeys. One firm sold 80 percent of its output to a wholesaler, and the other sold its own brand to jobbers and distributors. These firms grew most of the turkeys they processed, but did some custom processing.

The cooperative processors were concerned primarily with those operations directly involved in processing and selling. They did not own or have contracts with hatcheries or feed mills. They did have sales contracts with those producers belonging to the cooperative and had contracts with a cooperative sales federation.

Farms.--Six firms classified as farms carried out a number of functions other than growing turkeys. These farms were of two types: Those producing breeding stock and those producing turkeys for market.

The breeding farms concentrated on breeding and hatchery operations. Few were integrated beyond these stages. None were involved in feed operations or in processing.

Only two of the six reported that they received less than 100 percent of their gross income from operations connected with turkeys, such as growing, processing, or raising feed for the turkeys. One received 85 percent, and the other 30 percent, of gross farm income from turkeys. The farm receiving only 30 percent in 1962 planned to drop all other farm enterprises and concentrate on turkeys in 1963.

The average production for all farms was 40,833 turkeys per year--4 farms produced 20,000 to 30,000, and 2 produced 75,000 each per year.

Table 15.--Summary of the major characteristics of the survey firms not having risk-sharing contracts with turkey producers, 1961

Type of firm	Business structure	Major functions	Average number of functions per firm	Average annual volume per firm	Type of integration
Regional feed firm 1/	---	---	---	---	---
Local feed firm	Multi-unit corporation 2/	Feed manufacturing or mixing Financing production	4.0	262,000 turkeys grown under all arrangements	Hatchery operations integrated by ownership
Processor	Single firm cooperative or multi-unit corporation	Processing Live hauling Storing Growing turkeys Hatchery operation Egg production Feed manufacturing or mixing	4.4	16,500,000 pounds of turkeys processed	Cooperative processors had very little vertical integration. Other processors were highly integrated through ownership.
Farm	Individual ownership, not incorporated	Growing turkeys Processing Hatchery operations	3.8	41,000 turkeys grown under all arrangements	Processing, growing, and hatching integrated by ownership.

1/ No data entered for this 1 firm.
2/ Includes 1 local cooperative feed mill that was not part of a federation of cooperatives.

Four farms, including the breeding farms, had hatcheries. The volume of poults hatched ranged from 4,000 to 1 million per year; the breeding farms hatched the largest number of poults.

Four farms had processing facilities located at the farm. Based on 150 operating days, four of the plants were utilizing less than 20 percent of capacity and one less than 35 percent. The processing was very seasonal, as the farms produced turkeys primarily for the Thanksgiving and Christmas markets.

The farms with processing facilities sold from 20 to 98 percent of their turkeys through retail stores. Where only part of the turkeys were sold at retail, hens were retailed and toms were sold at wholesale.

One farm did not sell the toms as whole birds, but used them in making such products as turkey hash and sandwiches. This was entirely a hand-labor operation, and the products were distributed to retail outlets by the farm.

DETAILS OF AGREEMENTS AND CONTRACTS USED BY SURVEY FIRMS

Six of the 53 survey firms reported that they did not use any form of agreements or contracts from 1958 through 1962. Table 16 shows the number of contracts reported by the remaining 47 firms for those years. Some firms had more than one type of contract or agreement. The total number of arrangements used by the firms increased every year from 1958 to 1961, with a total increase of 69 percent for the period.

Reasons for Using Agreements and Contracts

Firms were asked why they entered into agreements or contracts (table 17). Most firms gave more than one reason.

The predominant area of contracting was between producers and other segments of the industry. "Increases volume" and "increase efficiency" were the reasons most frequently given for contracting. Apparently managers in industry regard these as correlated, since nine of the firms contracting with producers gave both answers.

Other reasons given for contracting were to provide needed financing and to spread risk. Spreading risk was most commonly cited by firms with three-way contracts. These reasons were not listed on the questionnaire but were volunteered by the persons interviewed.

Contracts and Agreements With Producers

In 1961, over 50 percent of the contracts and agreements reported by the survey firms were between producers and other segments of the industry, and almost half the total increase from 1958 to 1961 resulted from an increase in number of contracts and agreements between producers and others.

The number of firms having arrangements with producers increased each year from 1958 through 1961, but decreased from 1961 to 1962. Part of the 10-percent reduction of 1962, was a result of firms beginning contracting in 1961 and contracting for only 1 year.

Fifty percent of the firms reporting contracts with producers in 1958 were feed mills, and this amount increased to over 60 percent in 1961 and 1962.

Table 16.--Number of specified types of production and marketing arrangements, by type of firm surveyed, 1958-62 1/

Item	1958	1959	1960	1961	1962
	Number				
Firms having agreements or contracts with producers:					
Feed firms	13	16	18	26	23
Processors	7	7	7	6	6
Hatcheries	3	3	3	4	4
Farms	1	1	1	2	2
Others	2	3	3	4	3
Subtotal	26	30	32	42	38
Firms having agreements or contracts with processors:					
Feed firms	2	3	6	6	8
Other	-	-	-	4	4
Subtotal	2	3	6	10	12
Firms having agreements or contracts with hatcheries:					
Feed firms	2	3	3	6	6
Other	-	-	1	3	3
Subtotal	2	3	4	9	9
Firms having agreements or contracts with feed firms:					
Feed firms	5	5	5	5	6
Hatcheries	1	1	1	1	1
Other	-	-	-	1	1
Subtotal	6	6	6	7	8
Firms having agreements or contracts with wholesale brokers:					
Processors	4	4	4	4	4
Feed firms	1	1	2	2	2
Other	-	-	1	2	2
Subtotal	5	5	7	8	8
Firms having agreements or contracts with retailers or sales cooperative:	7	7	7	7	7
Total agreements and contracts reported	48	54	62	83	82

1/ Categories are not mutually exclusive.

Table 17.--Reasons given by survey firms for using agreements and contracts 1/

Reasons for using agreements and contracts	Firms having contracts with producers and others	Firms having agreements or contracts but not with producers
	Number	Number
Increase volume	11	6
Stabilize volume	8	2
Expand market	4	2
Additional investment	3	4
Increase efficiency	11	5
Provide needed financing 2/	3	1
Competition for business 2/	3	2
Spread risk 2/	3	-
Other 2/	4	2
Total reasons given	50	24

1/ 23 firms with contracts with producers responded; 12 firms with agreements or contracts not with producers responded.
2/Volunteered by persons interviewed--not listed on questionnaire.

Of the firms having one or more types of contracts with producers in 1961, 70 percent had risk-sharing contracts, 19 percent had financing contracts, and 21 percent had sales contracts. Basically, sales contracts commit all or part of a producer's turkeys to a firm. Production decisions remain with the producers. As this type of contract does not involve as high a degree of integration as the other types, the details of such contracts are not discussed here.

Use of risk-sharing contracts.--Risk-sharing contracts--contracts which involve a sharing or transferring of risk--are not new in the turkey industry. They have been in use for more than 20 years in Virginia and in some areas in California. The emphasis within the turkey industry on efficiency has placed increased emphasis on contracting as a means of integrating the production of turkeys with other segments of the industry. Recently, firms in many newer production areas have started contracting for production, and there has been expansion of the practice in older production areas. The sharp increase in production from 1960 to 1961 parallels an increase in the use of contracts in 1961. Some firms had used producer contracts before 1961 and had dropped them. There was a definite increase in contracting in 1961, although the reasons are not always readily apparent. Favorable prospects for returns may have been among the factors that contributed to the shift to contracting and the accompanying large production increase in 1961.

Changes during 1958-63 in use of risk-sharing contract by the firms surveyed are shown in table 18. Not all the firms gave information on when they started or stopped using contracts, but for those reporting there was an increase in the use of these contracts in the late fifties and a decrease after 1961. Four of the firms dropping out in 1962 had contracted only during the one year, 1961. These figures are scarcely conclusive for long-run industry trends however.

Characteristics common in risk-sharing contracts.--Risk-sharing contracts used by individual firms were more standardized than other financing arrangements.

Table 18.--Principal firms using risk-sharing contracts, selected years

Type of firm	Using 1958 or before	Starting 1959-61	Dropping 1962	Planning to use in 1963
	Number			
Feed firm	9	11	4	16
Processor	3	1	1	3
Hatchery	4	--	--	4
Farms	1	1	--	2
Other	--	2	--	2
Total	17	15	5	27

Specified characteristics of contracts used by 31 of the survey firms are shown in table 19. Methods of payment are considered separately, because of their complexity and their importance to both producers and contractors.

A break-out by type of firm is not shown in table 19; however, 24 of the firms were feed firms.

Not all firms responded to every question; the percentage of nonrespondents is shown in the table. One firm had a choice of contracts for 1 year or for a flock, and six firms indicated they had supervisors on call, in addition to supervisors making regular visits to producers.

A few of the contractors were reluctant to furnish copies of their contracts, and also to state the course of action they would follow if a producer did not fulfill the contract to their satisfaction. Most of those giving information had a clause in the contract giving them access to the premises of the producer at any time either to take the turkeys, feed, and other supplies, from the premises, or place a supervisor in charge of the turkeys. The contractors indicated they tried to work out the difficulties without resorting to the procedures outlined above, and then terminated the contract with the producer after the flock was sold. Contractors want to avoid claiming the turkeys because contract producers consider fair play and reliability as well as payment when they select contractors.

The numbers of contractors requiring producers to furnish certain items are shown in table 20. In general, the items each party furnished were very similar in a given area. For example, all California contracts required producers to furnish electricity, but not fuel or litter.

All contracts required that producers furnish the equipment needed. If the birds were ranged and not brooded, the producer needed less equipment. The payment was less for ranging than for both brooding and ranging.

Contract payment plans under risk-sharing contracts.--Not all contracts were alike even though many of the features were standard. There were differences, which on the surface seem small, but which greatly affect producers' returns. Some contractors offered several different types of contracts so that producers could utilize the equipment and other facilities they already had. Different pricing plans were also offered to appeal to those producers willing to take more risk in order to have a greater possibility of gain.

Table 19.--Grouping of characteristics common in risk-sharing contracts for turkey production, 31 survey firms

Characteristics of contract	Percentage of firms whose contracts had these characteristics
	Percent
Form:	
Written contract	90
Oral contract	10
Total	100
Length in force:	
One year	39
One flock	52
Other	3
No response	10
Total	1/ 104
Action by contractor if the contract broken:	
Claim turkeys	51
Other	10
No response	39
Total	100
Production practices:	
Firms specifying	81
Firms not specifying	3
No response	16
Total	100
Field supervision:	
Regular visits	58
On call	54
None	3
No response	10
Total	1/ 125

1/ Firms gave more than one answer.

Table 20.--Number of contractors requiring specified items to be furnished by producers under risk-sharing contracts, 31 survey firms, 1961-62

Items furnished by producer	Number of contractors
Labor, house, brooding equipment, range shelter and equipment, fuel, electricity and litter....	8
Labor, house, brooding equipment, range shelter and equipment, and electricity................	10
Labor, house, brooding equipment, range shelter and equipment..............................	8
Other......................................	5
Total....................................	31

Three basic plans were being used by the survey firms for determining the payment for turkeys grown under risk-sharing contracts: 2/

Profit sharing, in which--
  Contractor and producer shared profits.
  No base price was guaranteed for the turkeys.
  No incentive payments were made.
  Each party assumed risk of loss for items furnished.

Minimum guarantee plus share of net profits, in which--
  Contractor guarantees minimum payment per pound or head, or percentage of gross sales.
  Contractor and producer shared profits, counting guarantee as an expense.
  (Some contracts contained incentive clauses)

Minimum guaranteed payment, in which--
  There was no profit sharing.
  Contractor guarantees minimum payment per pound or head, or percentage of gross sales.
  Each party assumed risk of loss for items furnished.
  (Some contracts contained incentive clauses.)

Profit-sharing plans.--Nine firms used this type of contract. It was the earliest type of contract used in the industry. In most areas, it is gradually being replaced by one of the other plans. In earlier years, these contracts provided for the producer to receive 90 percent of the profits, but in 1961, some survey firms were paying the producer as little as 70 percent.

Under these plans, feed furnished to the producer was marked up at a price above the cash sale price, or there was a service charge on each ton of feed. Three

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2/ Specific examples of each type are given in Appendix A.

contractors reported that contract feed was priced at cost of ingredients plus labor and depreciation costs. In these cases, the profit was split 50-50.

None of the profit-sharing plans had any specific incentive clauses that would differentiate between payments to good and poor growers. However, there would be more profits to divide for the growers with low mortality, good feed conversion, and high-quality turkeys.

In this type of contract, prices of inputs are important to the grower, as the net profit to be split is that remaining after the items furnished by the contractor have been deducted. The grower's share of the profit is his return on labor and the cost of the other items furnished. A grower should know before signing the contract the charges that will be made for the inputs or, if this is not possible, the procedure that will be used to determine their price.

None of the firms with contracts in this category had made any recent changes in their method of payment, an indication that firms were not changing to this plan.

Minimum guarantee plus sharing of profits.--Three of the 12 firms using this contract payment plan reported changing from financing arrangements or profit-sharing plans. This plan is a step away from the older straight profit-sharing plan but still retains the possibility of producers sharing in profits.

Three firms included in their contracts clauses specifying the conditions under which producers would be paid certain sums above a base price.

Minimum guarantee--no profit sharing.--The minimum-guarantee contract was most prevalent in the South and West, especially in California. Incentive clauses were included by some contractors to substitute, in part, for the loss of sharing in possible profits, and to reward the better producers. Nine of the fourteen contracts in this group had clauses that provided an adjustment in the guaranteed payment based on mortality, feed conversion, and other factors. The minimum guaranteed payment was a fixed amount per pound or per head, but in one instance there was a price guarantee per pound. A typical plan with incentive clauses is given in the appendix.

Financing contracts

Basically, financing contracts involve extending credit to producers for all or part of the feed and other production supplies. The turkeys are owned by the producer, and the loan is generally secured by a chattel mortgage.

Financing arrangements with feed firms and other nontraditional ways of obtaining credit have certain characteristics that differentiate them from credit arrangements with lending institutions such as banks. The primary objective of the industry firms in financing producers is not to secure a return on their loans. For a feed firm, the objective is to sell more feed; for a processor, it is to assure a supply of turkeys. For this reason, firms financing turkey producers not only look at the same factors that banks do in determining the amount of financing, but, in addition, consider intangibles such as grower reputation, time with the contractor, and receptiveness to new ideas. Thus, the companies financing the producers make loans based on higher risk factors than do banks and other lending institutions. They do this because they are involved directly in the industry and have become lenders primarily to further other ends. However, this somewhat higher risk factor (for the group) leads the firm financing the turkey producer to seeking other compensation for this extra risk. For a feed company, this may be an informal agreement to use its feed; for a processor, first chance at buying the turkeys. Thus, the producer either gives up authority to make decisions or shares responsibilities with the firm financing the operation. It is difficult to make any further formal classification of these financing arrangements, as they differ from one individual to another with the same financing firm.

Decisions Facing Producers

The initial decision for turkey producers is selecting one or more of the major types of growing arrangements: (1) Independent production with credit from banks and other lending sources, (2) financing of production by feed companies and others, or (3) contract production. All of these alternatives may not be available to producers in every area. The producer's own resources may also be limited, bank loans for production may not be available, or there may be no firms in an area offering risk-sharing contracts to producers.

This study did not provide information that would permit a direct comparison of producer returns under risk-sharing contracts and other production arrangements. However, the basic characteristics of risk-sharing contracts suggest that part of the profits are transferred from the producer to the contractor to compensate the contractor for the production risk and his investment in production.

Contractors change the rate or method of payment to compensate for the risk they assume. Any increase in profits due to a rise in turkey prices during the production period either goes to the contractor or is shared by the two parties.

A firm generally prices feed poults, and other inputs higher to its contract producers than to others. This is to cover the risk and to pay for added supervision and management furnished by the contractor.

If producers decide to grow their turkeys under a risk-sharing contract, they may still have a choice open to them. Some survey firms in the Midwest, primarily in Ohio, Indiana, and Iowa, offered contracts for brooding and carrying the turkeys to about 8 weeks, or for brooding and growing the turkeys unyil they were ready to be sold. Many of the producers in these areas did not have adequate brooding facilities and did not wish to add facilities because of inadequate financing, or because their investment capital would earn more in other enterprises. California, a State with a high percentage of turkeys grown under contract and with large flocks, had fewer of the 8-week brooding contracts than other areas.

Most contracts that involve brooding and ranging have similar requirements on the inputs furnished by the producer, so the method of payment and the price of the inputs determine the type of contract finally selected.

In the areas surveyed, no producer organizations were found that bargained with contractors over contract terms. Thus, the producer bargains as an individual. The bargaining position of individual producers is affected by (1) the efficiency and reputation of the producer, (2) the number of contractors in a given area, and (3) the ability of the producer to use alternative production arrangements.

Producers must decide on the type of contract that will give them the greatest returns for their labor, facilities, and other inputs. If all contracts simply guaranteed a fixed price per bird, the choice would be simple, assuming the remaining terms were the same. When one plan includes a fixed guarantee plus a share of the profits, and others offer guarantees, but have different incentive clauses and the choice becomes more difficult. It requires a determination of costs and expected prices, and an accurate record of the inputs used in calculating the bonus or incentive payments.

Figure 5 illustrates a possible method for determining the best of two hypothetical contracts with different payment plans. In this example, Plan A guarantees 40 cents per bird plus 50 percent of the profits. Plan B guarantees 30 cents per bird plus 80 percent of the profits. The guaranteed payment is generally included as an expense by the contractor and taken out before the profits are divided. Assuming the cost of production (excluding the guaranteed payment) to be 18 cents per pound for a 20-pound turkey under both plans, the total cost including the guarantee would be 20 cents per pound under Plan A and 19.5 cents per pound under Plan B. This graphic presentation shows the price at which the two plans would return the same amount per pound to the producer (20.3 cents) and from this point on, Plan B would be superior from the viewpoint of the producer.

Payment plans which are based on a fixed amount per pound or per turkey, and which have incentive clauses, require a different framework for producer decisions. Prices received and the cost of inputs are no longer relevant variables. Incentive clauses provide for paying a bonus or deducting a penalty for such factors as mortality and feed conversion, and are the important factors to the producer.

Contracts and Agreements With Firms Other Than Producers

Contracts and agreements with processors.--Thirteen firms reported agreements or contracts with processors for 1961 and 1962. Four firms reported using 2 types of arrangements with processors, so 17 different contracts were reported.

The simplest type of arrangement was an agreement specifying a price for custom processing. Four firms reported this type of agreement.

Five firms reported "preselling" contracts with processors. Basically, these involved contracting to deliver a specified quantity of turkeys on certain dates at an agreed minimum price. All but one of these firms were located in California. It is not known whether the processors originated the contracts and were taking the risks involved or whether there were additional agreements or contracts between the processors and a wholesale or retail buyers of the processed turkeys.

Four of the reported contracts were agreements on scheduling delivery of turkeys to the processing plants and did not involve agreements on prices to be paid. These agreements were designed to coordinate the activities of the contractor and the processor for more efficient operations and not to shift risk resulting from price uncertainty.

Contracts and agreements with hatcheries.--In 1961-62, nine firms, six of them feed mills, reported agreements or contracts with hatcheries. The feed mills generally initiated the contracts. Four contracts were agreements on the delivery data, the quantity, and the price of the poults. These were used to assure the feed mills of an adequate supply of poults when they were needed in their contract production operations.

Two of the agreements with hatcheries involved risk-sharing production contracts. The other arrangements were agreements for custom hatching and coordinating the hatching of poults with other stages of production.

Contracts and agreements with feed firms and wholesale brokers.--A majority of the agreements between feed firms involved agreements between dealers and feed mills on the price of feed or ingredients and were not contracts coordinating different phases of each firm's activities. Agreements with wholesale brokers on commission charges and details of handling the turkeys were reported primarily by processors.

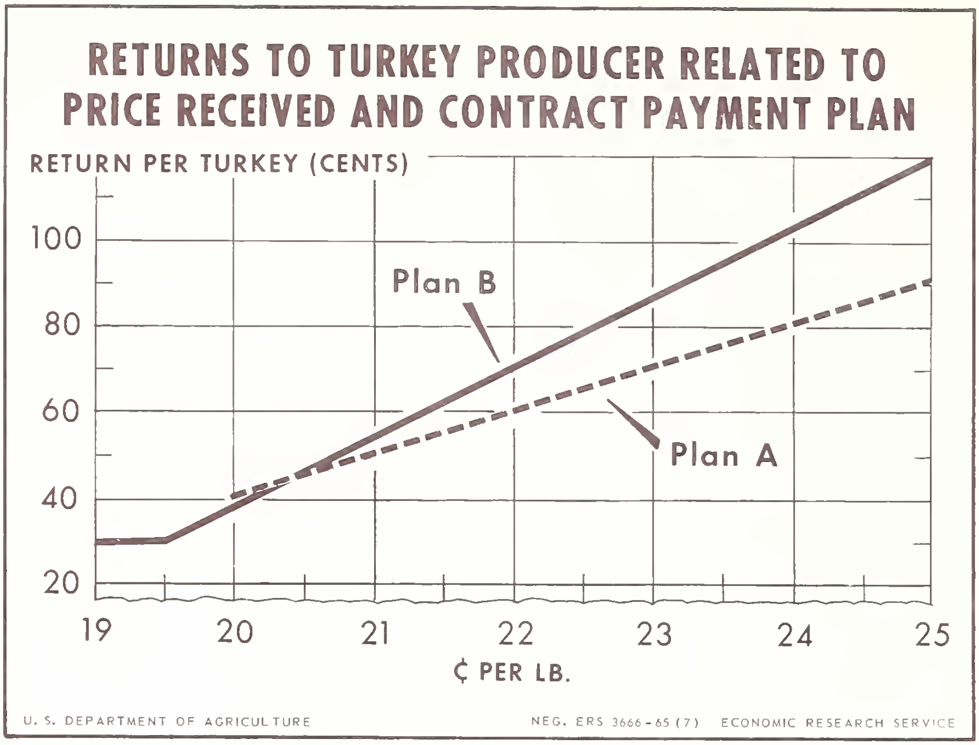

Figure 5

EXPECTED TRENDS IN CONTRACTING AND OTHER GROWING ARRANGEMENTS IN THE TURKEY INDUSTRY

The turkey industry will probably continue to move toward more contracting and other closely integrated systems of production. But it is not likely that such systems will be as uniform or as widely adopted as in the broiler-chicken industry. Estimates indicate that as much as 95 percent of boiler chickens are produced under contracts or other integrating arrangements. Contracts that have some form of minimum-guarantee plan for the grower are the most prevalent arrangement in the broiler-chicken industry.

The following contrasts between the turkey and broiler-chicken industries partially explain differences in rate of change in the industries and why the future trend in turkeys will not necessarily follow that of broiler chickens.

1. Technical differences in production.--Because of differences in susceptibility to disease, feed conversion, length of growing period, and size of finished product, turkey production requires more capital and has a higher risk than broiler-chicken production.

2. Product form.--Not all turkeys are processed, handled, or sold in the same way as broiler chickens. Based on eviscerated weight, approximately 87 percent of all turkeys were frozen in 1963, compared with 12 percent of the broiler chickens. Frozen turkeys can be stored longer than broiler chickens that are sold icepacked. In 1963, 16 percent of the turkeys processed were further-processed--used for turkey rolls or soup, canned, etc.--compared with just over 2 percent

of the chickens. Most of the contracts for preselling turkeys have been with firms engaged in some type of further-processing.

3. Market acceptance.--Turkeys have more established brand identification than chicken broilers. Many relatively small firms have been able to gain high acceptance of a brand name in local areas, and cooperatives and other firms have promoted brand identification on a national level.

4. Seasonality and noncontinuity of production during the year.--Turkeys have a much more seasonal demand than chickens. Production is also very seasonal with the bulk marketed in the peak demand season.

Integration of Production

Some firms in the industry have integrated all stages of production and marketing, but integration of production with other stages predominates. Because of this, the extent and trend of integration in production was considered separately.

Rough estimates of the percentage of turkeys grown under different production arrangements were made, using data from the firms surveyed and from the 1961 production figures supplied as a prerequisite for voting in the national turkey referendum (table 21).

Table 21.--Estimated percentage of turkeys produced under different growing arrangements in 1961-62, and expected changes

Growing arrangement	Percentage of production	Expected change
Credit not required, or secured from banks or other traditional sources	20-25	Decrease
Production financed by feed companies, hatcheries, others in the industry	45-50	Decrease
Risk-sharing contract production	25	Increase
Produced on farms owned or leased by companies	10-15	Increase

Many financing contracts involved sharing risk or transferring risk from the producer to the contractor. A conservative estimate is that 25 to 30 percent of the total financed production involved arrangements by which a large number of the major production decisions were transferred from the producer. Probably 60 to 70 percent of the total production during this period was under arrangements or contracts involving transfer or sharing of many of the production decisions traditionally made by the growers.

In the future, more risk-sharing or risk-transferring contracts will be used at the producer level. Large feed firms, primarily in the Midwest, indicated they would increase their use of risk-sharing contracts and reduce their straight financing operations.

There have been shifts in the kinds of production within some of the regions. The south Central Region is an example. For the period 1959-64, there has been an increase in this region's production, both in absolute numbers and as a share of total output. The States in the region with a significant part of their production under risk-sharing contracts were those expanding production.

Tennessee, Mississippi, and Louisiana reported no turkeys under contract in 1961. In 1959-64 these States had a relatively large decline in production (table 22). A very large percentage of the production in Alabama, Arkansas, and Texas was produced under risk-sharing contracts in 1961. These three States showed a significant increase in production in 1959-64. The Oklahoma ASCS office did not classify production by type, but reports from contractors in surrounding States showed that at least 13 percent of Oklahoma's production was under risk-sharing contracts with these contractors.

Table 22.--South Central Region: Turkeys grown under risk-sharing contract, 1961, and yearly changes in production, 1959-64

State	Percentage of 1961 production under risk-sharing contract 1/	Percentage changes in production					
		1959-64	1959-60	1960-61	1961-62	1962-63	1963-64
	Percent						
Kentucky	2/	+80	-21	+114	+5	-22	+30
Tennessee	0	-15	- 4	+ 8	-18	-17	+21
Alabama	66	+126	- 5	+10	-28	+127	+32
Mississippi	0	-33	-31	+ 4	+ 8	+ 4	-18
Arkansas	84	+81	+ 3	+49	-22	+21	+25
Louisiana	0	-57	-11	+11	-21	-31	-21
Oklahoma	2/	+16	+13	+31	-23	+12	-12
Texas	32	+42	+11	+22	-15	+12	+ 6
Region	34	+51	+ 7	+33	-17	+14	+12

1/ From registration data for 1962 referendum on marketing orders.
2/ Production from these States could not be classified from available information.

Source: Except as otherwise noted, derived from "Turkeys--Production, Disposition, and Gross Income," U.S. Dept. Agr. Statis. Rptg. Serv. POU 3-1, for the years 1959-64.

This association of increased production with risk-sharing contracts indicates an increasing percentage of production under risk-sharing contracts in the future. However, several small incorporated firms indicated they would expand production by buying or leasing farms rather than through contracting. These firms had well-known brand names, and to maintain the quality associated with these brand names, and for other reasons, preferred this method of integrating production.

Integration Involving More Than Production Stages

In the past, turkey operations of the larger multiproduct firms have been much less integrated through ownership than the small- and medium-size firms that were more specialized in turkey production. The larger firms have been primarily interested in selling feed, and have operated mainly through agreements with hatcheries, processors, feed mills, and other related firms. Any movement toward ownership by these firms will be primarily the acquisition of nonproduction facilities such as processing plants. Acquiring these facilities probably represents the best use of investment capital for these firms.

Integration of farm and nonfarm stages through ownership will continue to be used to some extent by smaller firms. Many of the partially integrated processing firms producing around 5 million pounds per year will continue to expand ownership of production and marketing facilities. In the past, one method of achieving this has been through the incorporation of several large independent producers whose operations were already integrated to some extent. These mergers have resulted in producers with different facilities complementing each other, and also have resulted in a scale of operation permitting better utilization of facilities. This type of merger is likely to be used by producers already owning some type of facility other than those used in production, or having a large amount of capital available for acquiring additional facilities.

More preselling contracts will be used by the industry if the trend toward further-processing of turkeys continues. In the past, sucessful contracts guaranteeing a price before the turkeys are actually produced have been negotionated with processors that further-processed turkeys. More feed firms and other integrators are using agreements and contracts to integrate growing and processing operations. Thus, the trend in the industry is toward more integration between processors and firms that in the past have concentrated only on vertical integration of production and other operations.

Seasonality of production and of demand will continue in the industry, with excess capacity as a result. A recent publication on turkey processing pointed out that in 1960-61 almost half the plants studies operated at less than 30 percent of their potential annual capacity (7).

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APPENDIX A

SPECIFIC PAYMENT PLANS FOR RISK-SHARING CONTRACTS

The following payment methods represented the basic payment plans in the risk-sharing contracts. Differences in rates and other variations were found within the three basic types.

Profit Sharing

a. The producer furnished buildings, equipment, and labor and the contractor furnished all other inputs. Feed was priced to contract producers at the regular profit markup. The net profit on the turkeys was the gross proceeds minus the cost of feed and other inputs furnished by the contractor. The contractor took any loss on the inputs he furnished. The net profit was divided, 80 percent to the grower and 20 percent to the contractor.

b. The producer furnished buildings, equipment, and labor and the contractor furnished the other inputs. The net profit was divided, 50-50. Feed was billed at ingredient and labor costs (no profit makup) and the net profit on the turkeys was the gross proceeds minus the cost of feed and other inputs furnished by the contractor. The producer and contractor shared equally any loss on the feed, turkeys, and other cash expenses.

c. The producer furnished labor and buildings and the contractor furnished the equipment and other inputs. The producer received 60 percent of the net profits on the turkeys and the contractor 40 percent. The equipment was depreciated over a 3-year period and then given to the producer; at this time the producer's share of the profits increased to 80 percent. Net profit was the gross proceeds minus the inputs furnished by the contractor. The feed was billed with a regular profit margin and the contractor assumed loss for the inputs he furnished.

d. The producer furnished the land, labor, and equipment and the contractor furnished the other inputs. The producer received 80 percent of the net profit which was the gross proceeds for the turkeys minus the inputs supplied by the contractor. The feed price contained a profit margin over cost.

The same contractor offered an optional plan that would give the producer 60 percent of the net profit for brooding and not ranging. The net profit was the price received for the turkeys going on range minus the cost of the inputs. The contractor assumed loss on the inputs he furnished in these contracts.

Minimum Guarantee Plus a Share of the Profits

a. The producer furnished the buildings, equipment, labor, and electricity and the contractor the other inputs. The producer was guaranteed a minimum of 19 cents per pound. Feed was billed at the cost of ingredients plus labor and depreciation. The producer got 60 percent of price above 19 cents and the contractor assumed any loss on inputs he furnished.

b. The producer furnished buildings, labor, and equipment, the contractor all other inputs. The producer received 1 1/2 cents per pound plus 50 percent of the net profit. Net profit was the gross proceeds from the turkeys minus the guarantee and other inputs furnished by the contractor. The feed was billed at markup over cash sales and the contractor assumed the loss on any items he furnished.

c. The producer furnished all items except poults, feed, and medicine. The producer received a guarantee of 40 cents per turkey and 90 percent of the net profit. Net profit was the gross proceeds from the turkeys minus the guarantee and production items furnished by the contractor. The contractor assumed the loss on any items he furnished.

d. The producer furnished, buildings, labor and equipment and the contractor supplied the other inputs. The producer was guaranteed from 2 to 5 percent of the gross proceeds from the turkeys, depending on the amount of loss on the turkeys. A loss occurred if the gross proceeds from the turkeys did not cover the inputs supplied by the contractor. The following conditions specified the guarantee:

Percentage of gross sales	Loss per turkey started	
	Bronze	Broiler
5 percent	Less than $0.250	Less than $0.120
3 percent	$0.251-$0.350	$0.121-$0.170
2 percent	More than $0.350	More than $0.170

The producer furnished buildings, equipment, and labor and the contractor furnished all other inputs. The producer was paid 20 cents per poult to brood turkeys.

For ranging, the producer was paid 10 cents per turkey plus 40 percent of the net profit. Net profit was the gross proceeds from the turkeys minus items furnished by the contractor (including the payment for brooding and ranging). The contractor assumed any loss for items he furnished. A producer could contract to brood or range, or both.

Guaranteed Payment Plus Incentive Clause

The producer furnished land, house, equipment, electricity, and labor and the contractor furnished the other inputs. Producer was guaranteed 3 cents per pound for hens and 2 cents per pound for toms, with the total price per bird adjusted up or down depending on the mortality and feed conversion rate (pounds of feed required for 1 pound of gain).

The following adjustments were specified:

Feed conversion rate (pounds)	Cents per bird change from basic guarantee
Less than 3.50	+12.0
3.74	+ .5
3.75	0
3.76	- .5
4.00 or more	-12.5

If the mortality was 8 percent, the basic guarantee was unchanged. One-tenth of a cent was added per bird for each one-tenth of 1-percent mortality decrease from 8 percent, and one-tenth of a cent was subtracted per bird for each one-tenth of 1 percent increase in mortality above 8 percent. In addition, 10 cents was paid per turkey for culls, for grade B's above 25 percent of the birds marketed, and grade C's above 10 percent of the birds marketed.

APPENDIX B

Table 23.--Percentage of turkey production reported under risk-sharing contracts, and other production arrangements, and average pounds per producer, by States, 1961

State	Rank in total 1961 production 1/	Risk-sharing contract production		Production under other arrangements		No production arrangement designated	
		Percentage of State total	Average per producer	Percentage of State total	Average per producer	Percentage of State total	Average per producer
		Percent	1,000 pounds	Percent	1,000 pounds	Percent	1,000 pounds
Minnesota	1	7	481	91	257	2	258
California	2	48	466	52	439	0	---
Iowa	3	13	129	87	203	0	---
Wisconsin	4	4	162	96	343	0	---
Missouri	5	34	209	58	143	8	250
Virginia	6	70	88	30	210	2/	130
Texas	7	32	237	68	139	0	---
Indiana	8	30	132	70	175	0	---
Utah	9	35	314	65	326	0	---
Ohio	10	19	136	81	170	0	---
Arkansas	11	84	229	16	3/1,463	0	---
N. Carolina	12	15	223	84	405	1	144
Colorado	13	2	265	98	286	0	---
Oregon	14	16	141	84	188	0	---
Oklahoma	15	13	227	0	---	87	160
Pennsylvania	16	0	---	0	---	100	150
Nebraska	17	6	444	84	211	10	436
Michigan	18	28	290	69	126	3	98
Illinois	19	1	136	94	193	5	298
N. Dakota	20	3	124	95	125	2	72
Kansas	21	4	101	95	99	1	69
S. Dakota	22	0	---	100	304	0	---
W. Virginia	23	50	62	50	414	0	---
S. Carolina	24	19	125	81	265	0	---
New York	25	15	110	85	235	0	---
Kentucky	26	1	96	0	---	99	374
Georgia	27	16	174	84	228	0	---
Massachusetts	28	0	---	100	190	0	---
Washington	29	13	134	87	248	0	---
Alabama	30	66	137	34	83	2/	9
Connecticut	31	3	34	97	252	0	---
Idaho	32	5	191	95	403	0	---
Florida	33	0	---	100	163	0	---
Delaware	34	37	96	63	208	0	---
New Jersey	35	0	---	100	106	0	---

See footnotes at end of table.

Table 23.--Percentage of turkey production reported under risk-sharing contracts, and other production arrangements, and average pounds per producer, by States, 1961 --Continued

State	Rank in total 1961 production 1/	Risk-sharing contract production		Production under other arrangements		No production arrangement designated	
		Percentage of State total	Average per producer	Percentage of State total	Average per producer	Percentage of State total	Average per producer
		Percent	1,000 pounds	Percent	1,000 pounds	Percent	1,000 pounds
Maryland	36	36	88	42	55	22	121
Mississippi	37	0	---	100	147	0	---
Tennessee	38	0	---	100	96	0	---
Arizona	39	0	---	100	224	0	---
New Hampshire	40	8	72	72	158	20	88
Louisiana	41	0	---	100	149	0	---
Maine	42	0	---	100	36	0	---
Vermont	43	0	---	100	32	0	---
New Mexico	44	0	---	100	115	0	---
Rhode Island 4/	45						
Montana	46	0	---	100	117	0	---
Wyoming	47	0	---	100	4	0	---
Nevada 4/	48						

1/ Derived from "Turkeys--Production, Disposition, and Gross Income, 1961-62, "U.S. Dept. Agr. Statis. Rptg. Serv. POU. 3-1, Apr. 1963.
2/ Less than 1 percent.
3/ Represents a very small number of large producers.
4/ Rhode Island and Nevada did not report any production in connection with the marketing referendum.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders, except as otherwise indicated.

Table 24.--Distribution of producers with risk-sharing contracts by number of parties in contract, 1961

State 1/	Number of parties in contracts				
	Two	Three	More than three	Number not given	Total
	Percent				
Minnesota	19	0	0	81	100
California	91	9	0	0	100
Iowa	76	1	2	21	100
Wisconsin	81	0	0	19	100
Missouri	0	0	0	100	100
Virginia	84	10	0	6	100
Texas	91	4	0	5	100
Indiana	61	9	0	30	100
Utah	100	0	0	0	100
Ohio	86	4	0	10	100
Arkansas	95	5	0	0	100
N. Carolina	100	0	0	0	100
Colorado	0	0	0	100	100
Oregon	100	0	0	0	100
Oklahoma	67	33	0	0	100
Nebraska	0	0	0	100	100
Michigan	0	0	0	100	100
Illinois	100	0	0	0	100
N. Dakota	0	0	0	100	100
Kansas	0	0	0	100	100
W. Virginia	0	0	0	100	100
S. Carolina	100	0	0	0	100
New York	100	0	0	0	100
Kentucky	100	0	0	0	100
Georgia	0	0	0	100	100
Washington	100	0	0	0	100
Alabama	100	0	0	0	100
Connecticut	100	0	0	0	100
Idaho	0	0	0	100	100
Delaware	50	11	0	39	100
Maryland	11	0	0	89	100
N. Hampshire	100	0	0	0	100

1/ States not listed reported no producers under contract.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

Table 25.--Percentage of producers selling turkeys through cooperatives and other market outlets, by type of production arrangement and State, 1961

State	Producers with risk-sharing contracts				Producers with other production arrangements			
	Selling through cooperatives	Selling through other market outlets	Market outlet not identified	Total	Selling through cooperatives	Selling through other market outlets	Market outlet not identified	Total
	Percent							
Minnesota	27	60	13	100	47	53	0	100
California	10	59	34	100	30	59	11	100
Iowa	11	47	42	100	21	73	6	100
Wisconsin	47	29	24	100	33	60	7	100
Missouri	6	91	3	100	8	82	10	100
Virginia	1	72	27	100	2	83	15	100
Texas	7	72	21	100	9	87	4	100
Indiana	1	80	19	100	0	94	6	100
Utah	12	64	24	100	69	24	7	100
Ohio	0	22	78	100	0	58	42	100
Arkansas	0	100	0	100	0	100	0	100
North Carolina	0	71	29	100	1	98	1	100
Colorado	0	100	0	100	40	60	0	100
Oregon	19	19	62	100	66	34	0	100
Oklahoma	0	0	100	100	0	0	100	100
Pennsylvania 1/	---	---	---	---	---	---	---	---
Nebraska	25	50	25	100	39	60	1	100
Michigan	0	75	25	100	0	95	5	100
Illinois	100	0	0	100	1	94	5	100
North Dakota	60	40	0	100	44	56	0	100
Kansas	14	86	0	100	18	80	2	100
South Dakota 2/	---	---	---	---	25	75	0	100
West Virginia	0	0	100	100	0	0	100	100
South Carolina	0	72	28	100	0	86	14	100
New York	0	0	100	100	0	0	100	100
Kentucky 3/	---	---	---	---	---	---	---	---
Georgia	0	100	0	100	0	100	0	100
Massachusetts 2/	---	---	---	---	0	79	21	100
Washington	0	45	55	100	53	45	2	100
Alabama	0	0	100	100	0	0	100	100
Connecticut	0	33	67	100	0	92	8	100
Idaho	0	100	0	100	0	100	0	100
Florida 2/	---	---	---	---	0	0	100	100
Delaware	0	100	0	100	0	29	71	100
New Jersey 2/	---	---	---	---	0	100	0	100

See footnotes at end of table.

Table 25.--Percentage of producers selling turkeys through cooperatives and other market outlets, by type of production arrangement and State, 1961--Continued

State	Producers with risk-sharing contracts				Producers with other production arrangements			
	Selling through cooperatives	Selling through other market outlets	Market outlet not identified	Total	Selling through cooperatives	Selling through other market outlets	Market outlet not identified	Total
	Percent							
Maryland	0	22	78	100	0	100	0	100
Mississippi 2/	---	---	---	---	0	0	100	100
Tennessee 2/	---	---	---	---	0	0	100	100
Arizona 2/	---	---	---	---	0	100	0	100
New Hampshire	0	100	0	100	0	100	0	100
Louisiana 2/	---	---	---	---	0	100	0	100
Maine 2/	---	---	---	---	0	0	100	100
Vermont 2/	---	---	---	---	0	0	100	100
New Mexico 2/	---	---	---	---	20	80	0	100
Montana 2/	---	---	---	---	0	100	0	100
Wyoming 2/	---	---	---	---	0	100	0	100

1/ Production could not be identified by type of arrangement.
2/ No contract production reported for these States.
3/ More than 99 percent of the production could not be identified by type of arrangement.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

Table 26.--Distribution of production by turkey flock sizes, 10 leading States, 1961 1/

Item	0- 4,999	5,000- 9,999	10,000- 14,999	15,000- 19,999	20,000- 29,999	30,000- 49,999	50,000- and above	Total
	Percent							
Minnesota:								
Risk-sharing-contract production	2.4	4.6	7.0	1.3	10.8	3.7	70.2	100.0
Noncontract production	5.2	10.6	11.1	8.8	13.2	20.2	30.9	100.0
Combined production	5.0	10.1	10.8	8.2	13.1	18.9	33.9	100.0
Contract as percentage of all production	0.2	.4	.5	.1	.8	.3	5.4	7.7
California:								
Risk-sharing-contract production	1.7	6.2	8.8	8.4	19.6	23.2	32.1	100.0
Noncontract production	1.9	7.0	8.2	8.1	13.5	22.2	39.1	100.0
Combined production	1.8	6.6	8.5	8.3	16.4	22.7	35.7	100.0
Contract as percentage of all production	.8	3.0	4.3	4.1	9.5	11.3	15.6	48.6
Iowa:								
Risk-sharing-contract production	16.8	25.8	24.5	14.1	5.4	6.9	6.5	100.0
Noncontract production	8.4	18.8	13.1	11.9	12.9	20.4	14.5	100.0
Combined production	9.2	19.5	14.2	12.1	12.1	19.1	13.8	100.0
Contract as percentage of all production	1.6	2.5	2.4	1.4	0.5	0.7	0.6	9.7
Wisconsin:								
Risk-sharing-contract production	2.3	15.1	12.3	33.7	13.7	22.9	0.0	100.0
Noncontract production	2.7	4.6	4.0	6.2	14.3	29.6	38.6	100.0
Combined production	2.7	5.0	4.3	7.2	14.3	29.3	37.2	100.0
Contract as percentage of all production	0.1	0.6	0.5	1.3	0.5	0.9	0.0	3.9
Missouri:								
Risk-sharing-contract production	8.2	20.5	19.4	9.2	13.0	11.1	18.6	100.0
Noncontract production	17.0	22.5	19.5	11.9	13.6	5.0	10.5	100.0
Combined production	13.7	21.8	19.5	10.9	13.4	7.2	13.5	100.0
Contract as percentage of all production	3.0	7.6	7.2	3.4	4.8	4.1	6.9	37.0
Virginia:								
Risk-sharing-contract production	18.9	21.9	18.0	8.9	7.2	6.7	18.4	100.0
Noncontract production	3.9	5.2	5.3	2.3	9.9	13.3	60.1	100.0
Combined production	13.6	16.0	13.6	6.6	8.2	9.0	33.0	100.0
Contract as percentage of all production	12.3	14.2	11.7	5.8	4.7	4.3	12.0	65.00

Table 26.--Distribution of production by turkey flock sizes, 10 leading States, 1961 1/--Continued

Item	0- 4,999	5,000- 9,999	10,000- 14,999	15,000 19,999	20,000- 29,999	30.000 49,999	50,000- and above	Total
	Percent							
Texas:								
Risk-sharing-contract production	5.5	21.2	18.0	13.3	13.6	8.9	19.5	100.0
Noncontract production	17.1	23.5	12.2	8.7	10.0	15.8	12.7	100.0
Combined production	12.9	22.7	14.3	10.4	11.3	13.3	15.1	100.0
Contract as percentage of all production	2.0	7.7	6.5	4.8	4.9	3.2	7.0	36.1
Indiana:								
Risk-sharing-contract production	11.8	23.4	18.5	8.3	3.7	2.7	31.6	100.0
Noncontract production	11.3	21.4	14.6	14.7	20.0	7.9	10.1	100.0
Combined production	11.4	22.1	15.8	12.7	14.9	6.3	16.8	100.0
Contract as percentage of all production	3.7	7.4	5.8	2.6	1.2	.9	9.9	31.5
Utah:								
Risk-sharing-contract production	6.8	16.1	10.1	6.4	6.6	11.0	43.0	100.0
Noncontract production	2.8	15.1	12.8	17.2	9.9	17.2	25.0	100.0
Combined production	4.1	15.4	12.0	13.7	8.8	15.2	30.8	100.0
Contract as percentage of all production	2.2	5.2	3.3	2.0	2.1	3.6	13.9	32.3
Ohio:								
Risk-sharing-contract production	12.6	16.7	23.6	4.6	6.7	5.7	30.1	100.0
Noncontract production	10.8	14.2	13.3	10.9	13.2	13.0	24.6	100.0
Combined production	11.3	14.8	15.6	9.4	11.7	11.3	25.9	100.0
Contract as percentage of all production	2.9	3.9	5.4	1.0	1.5	1.3	6.9	22.9
All 10 States	7.4	14.1	13.8	8.8	13.1	13.7	29.1	100.0

1/ Flock size is measured by the total number of turkeys raised during the year.

Source: Data obtained from turkey producers registering for the 1962 referendum on marketing orders.

UNITED STATES DEPARTMENT OF AGRICULTURE
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